

PROPOSALS FOR STABILIZATION OF THE NAMES OF CERTAIN
GENERA AND SPECIES OF HOLOTHURIOIDEA. Z.N.(S.) 1782

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A recent attempt to evaluate the drastic revision and subdivision of *Holothuria* sensu extenso made by Deichmann (1958), which took little regard for earlier attempts at subdivision, uncovered a number of nomenclatorial anomalies which can only be cleared up by resort to the plenary powers of the Commission. In some cases designation of a type-species is enough, but in others suppression of names becomes involved. The present survey is mainly concerned with the various taxa named by Brandt (1835) and Jaeger (1833), but there are also a few others, notably of Selenka (1867), Pearson (1914), H. L. Clark (1922) and, of course, Deichmann (1958). At present we are only prepared to accord subgeneric rank to most of Deichmann's nominal genera, which will need a much more intensive study for a proper assessment of their value.

A. GENUS-GROUP NAMES

1. *Sporadipus* Brandt, 1835. This included two nominal subgenera, *Colpochirota* and *Acolpos*, each with a single species, respectively *ualanensis* Brandt and *maculatus* Brandt. *Sporadipus* has been considered a synonym of *Holothuria* since Selenka so referred it in 1867. Panning (1934-35) used the name in his heading for section B of *Holothuria*, comprising the greater part of the genus, though he gave no comparable name to section A. *Sporadipus maculatus* does fall within his section B (in the synonymy of *H. arenicola*) whereas *ualanensis* does not (being mentioned only in the synonymy of *H. (Bohadschia) marmorata*). However, Semper (1868) also used the name *Sporadipus* for a group of species within *Holothuria* and *ualanensis* (given as *ualensis*) Brandt was included there while *H. (Sporadipus) maculatus* was referred with a question mark to *Holothuria* sensu stricto. Neither Panning nor Semper made a formal type-designation for *Sporadipus* and in 1939 Panning dropped *Sporadipus* after consultation with Heding. We prefer to follow Semper and to designate *S. ualanensis* as type-species of *Sporadipus*. *Sporadipus* by this move becomes a synonym of *Bohadschia* Jaeger, 1833, *ualanensis* having been found by Ludwig (1881) to be a subjective synonym of *Bohadschia marmorata* Jaeger, the type-species of *Bohadschia* as designated by Pearson (1914, p. 164). Pearson's actual words are ' *Bohadschia*, to which such a form as *Holothuria marmorata* belongs ' but we consider that this had all the intention of a type designation since Pearson followed it up in the same sentence with ' *Thymiosicya*, of which *Holothuria impatiens* may be regarded as the type '. More recently Panning (1939, p. 524) has again designated *marmorata* as type-species of *Bohadschia*.

If *maculatus* were designated as type-species, then *Sporadipus* would threaten *Thymiosicya* Pearson, which we consider has better grounds for recognition, even though as a subgeneric name it has less standing.

As for Brandt's subgeneric names, under Article 44 of the Code, the designation of *ualanensis* as type-species of *Sporadipus* also has the effect of reducing *Colpochirota* to the synonymy of *Sporadipus* and hence of *Bohadschia*, since it automatically becomes the nominate subgenus. *Acolpos*, however, remains available, with type-species, by monotypy, *Sporadipus (Acolpos) maculatus* Brandt. [In fact Brandt did append the name of a second species, *Holothuria peruviana* Lesson, but this inclusion was only provisional.] In 1867 Selenka, as first reviser, regarded *maculatus* as congeneric with *Holothuria (Microthele) maculata* Brandt, 1835 and so a secondary homonym; accordingly he proposed the replacement name *H. brandtii* for *Sporadipus maculatus*. [For further remarks on the justification for this action see under the heading of number 4.] In 1868 Semper referred both *maculatus* and *brandtii* to the synonymy of *Holothuria* (now *Bohadschia*) *marmorata* but Ludwig (1881) found from a re-examination of Brandt's type-material that *maculatus* is conspecific rather with *H. arenicola* Semper, 1868. Accordingly Théel (1886) and following authors including Panning (1929) placed *maculatus* in the synonymy of *arenicola* although they still left *brandtii* as a synonym of *B. marmorata*. This is invalid since, under Article 71d of the Code, the type of the replacement nominal species (in this case *brandtii*) must be that of the prior nominal species (*S. maculatus*). Whatever the identity of the specimens which Selenka himself referred to *brandtii*, both names *brandtii* and *maculatus* must refer to a single species. It is unthinkable that the name *maculatus*, around which so much confusion has reigned, or the long disused *brandtii* should replace the very well-known *H. arenicola* and so we request that the Commission use its plenary powers to suppress *brandtii*. Simultaneously we would like to see *Acolpos* rejected since it has chronological priority over both *Thymiosicya* Pearson, 1914 and *Brandtothuria* Deichmann, 1958. According to Pearson the type-species of *Thymiosicya* is *Holothuria* (originally *Fistularia*) *impatiens* (Forskål), 1775. This is closely related to and certainly consubgeneric with *arenicola* Semper, which is the type-species not only of *Acolpos* but also of Deichmann's nominal genus *Brandtothuria*. Since *Thymiosicya* was properly diagnosed by Pearson (even if with characters of which Deichmann disapproved) and a type-species was designated, we consider that the name should be used in place of *Brandtothuria* if a supra-specific category is to be recognised for the *arenicola-impatiens* group of species distinct from *Holothuria sensu stricto*.

2. *Thelenota* Brandt, 1835. With *Microthele* this was proposed by Brandt as a subgenus of *Holothuria*. In 1924 the Commission validated *Holothuria* Linnaeus, 1767, with type-species *H. tremula* Linnaeus, 1767 (non Gunnerus, 1767) = *H. tubulosa* Gmelin, 1790. Since Brandt included *tubulosa* in the subgenus *Thelenota*, under Article 44 this becomes the nominate subgenus and *Thelenota* Brandt a synonym of *Holothuria*. However, H. L. Clark (1921) revived *Thelenota* for type-species *Trepang ananas* Jaeger, 1833, the first species given by Brandt, and referred the genus to the Stichopodidae rather than the Holothuriidae. We request the Commission to exercise its plenary powers to suppress *Thelenota* Brandt for the purposes of the Law of Homonymy in order to validate *Thelenota* H. L. Clark.

Brandt also named two further supra-specific taxa, given as 'sections' within the subgenus *Thelenota* which have no status in nomenclature; these are *Camarosoma* and *Platysoma* Brandt.

3. *Trepang* Jaeger, 1833. H. L. Clark debated whether this generic name should be used for *ananas* in place of *Thelenota* but rejected the idea on the grounds that, if any of the four species included in *Trepang* by Jaeger is to be considered the type-species, this should be the (first-named and) only one of unquestioned inclusion by Jaeger, i.e. *edulis* Lesson; accordingly Dr. Clark formally designated *edulis* as type-species of *Trepang*.

Deichmann was uncertain as to the best position for *edulis* in her subdivision of *Holothuria*, removing it from the *imitans*-group of Panning, which she called *Semperothuria* and placing it near, but not in, the *atra*-group (*Ludwigothuria* Deichmann; *Halodeima* Pearson). These two taxa of Deichmann's are clearly not very well-defined. We incline to the opinion that *edulis* can be regarded as consubgeneric with the *atra*-group, so that *Trepang* could threaten the well-known name *Halodeima*.

The revival of *Trepang* as a scientific name when it has for so long been used only as a general term for edible holothurians, seems very undesirable. Accordingly we request the Commission to exercise its plenary powers to suppress it.

4. *Microthele* Brandt, 1835. This was the second subgenus of *Holothuria* named by Brandt and was established for six of his own species, *maculata*, *dubia*, *tigris*, *sordida*, *Aethiops* and *affinis*, as well as four of Jaeger's species, *fuscocinerea*, *atra*, *fuscopunctata* and *scabra*. All Brandt's nominal species with the exception of *maculata* were either referred to the synonymy of other species or (*sordida*) said to be unrecognisable by Ludwig (1881), followed by Théel (1885) and Panning (1929). We can find no *valid* type-designation for *Microthele* (see below) and accordingly propose that *Holothuria* (*Microthele*) *maculata* Brandt be considered the type-species. As H. L. Clark (1921) has shown, this is a primary homonym of *Holothuria maculata* Chamisso and Eysenhardt (1821), so that the proper name for the species is *nobilis* Selenka, which has already been placed on the Official List (Opinion 762).

[It may be pointed out here that *Holothuria maculata*, Lesueur, 1924 and *H. maculata* Kuhl and van Hasselt, 1869 are also invalidated as junior primary homonyms.]

The designations by Panning (1939) of *H. difficilis* Semper, and by Deichmann (1958) of *H. sanctori* Delle Chiaje, 1823, as type-species of *Microthele* are both invalid since neither nominal species was included in the subgenus by Brandt.

The type-species of *Argiodia* Pearson, 1914, is *H. maculata* Brandt (H. L. Clark having corrected (1921) Pearson's lapsus in designating a non-existent *maculata* (Selenka)). This renders *Argiodia* a synonym of *Microthele*, as stated by Dr. Clark.

5. *Stichopus* Brandt, 1835. This included two nominal subgenera, *Perideris* with the single species *chloronotos* Brandt, and *Gymnochirotia* with *cinerascens* Brandt and *leucospilota* Brandt. H. L. Clark (1922) has designated *chloronotos* as type-species of *Stichopus*; *Perideris* as the nominate subgenus thereby becomes a synonym of *Stichopus*.

We now designate *Stichopus* (*Gymnochirot*a) *cinerascens* Brandt as type-species of *Gymnochirot*a. Since this species is closely related to, and considered by us to be consubgeneric with, *Holothuria languens* Selenka, the type-species of *Semperothuria* Deichmann, 1958, the latter would become a synonym of *Gymnochirot*a unless that is suppressed under the plenary powers, as we now request, the name being long forgotten.

Brandt's second species, *Stichopus* (*Gymnochirot*a) *leucospilota* (already placed on the Official List [Opinion 762]) is thus left available to act as type-species of *Mertensiothuria* Deichmann (1958) as designated by Deichmann.

6. *Ludwigothuria* Deichmann, 1958. This is a synonym of *Halodeima* Pearson, 1914, which has the same type-species, *Holothuria atra* Jaeger, 1833, designated by Pearson on p. 164 and again by Panning (1939, p. 524).

7. *Bohadschia* Jaeger, 1833. The type-species is *B. marmorata* Jaeger, 1833, designated by Pearson, 1914 and again by Panning (1939). (See also under no. 1.)

8 & 9. *Actinopyga* Bronn, 1860 and *Mülleria* Jaeger, 1833. *Actinopyga* Bronn was a replacement name for *Mülleria* Jaeger, 1833, non *Mülleria* Férussac, 1823, Mollusca. No type-species was designated by Bronn, though both the species given by Jaeger, *Mülleria echinites* and *lecanora* are mentioned in the text in combination with the generic name *Actinopyga*. In 1914 (p. 164) Pearson designated *Holothuria miliaris* Quoy and Gaimard, 1833, as type-species of *Actinopyga* and an identical designation was made by Panning (1939). However, both these designations are invalid since *H. miliaris* is ineligible, not having been included in *Mülleria* Jaeger. Accordingly we now designate *Mülleria echinites* Jaeger, 1833, as type-species of *Actinopyga* Bronn, 1860.

10. *Fistularia* Forskål, 1775. This is pre-occupied by *Fistularia* Linnaeus, 1758, Pisces.

11. *Cystipus* Haacke, 1880. The type-species by monotypy is *C. pleuripus* Haacke; this was considered by H. L. Clark (1946) to be a synonym of *Stichopus rigidus* Selenka, 1867. Deichmann (1958) designated *rigidus* as type-species of her *Fossothuria*, which therefore becomes a synonym of *Cystipus*.

12. *Ananus* Sluiter, 1881. The type-species by monotypy is *A. holothuroides* Sluiter. According to Théel (1886) this is 'probably a deformed *Holothuria pyxis* or some other species'. We can trace no subsequent use of either generic or specific name and accordingly request that both be suppressed on the grounds of uncertain identity. Sluiter's type specimen should be in the Amsterdam Museum.

13. *Diploperideris* Brandt, 1835. The type-species by monotypy is *D. sitchaensis* Brandt. Stimpson (1857) referred this to *Holothuria* and Ludwig (1881) to *Stichopus* after examining one of Brandt's type specimens which he said was immature; Théel (1886) also included it under *Stichopus* but commented that it is unsatisfactorily known. H. L. Clark (1922) noted that lack of measurements of spicules prevents identification. In view of this uncertainty, we request that both *Diploperideris* and *sitchaensis* be suppressed.

14. *Eostichopus* Deichmann, 1958. This is a *nomen nudum*, no type-species having been designated, as pointed out to Dr. Deichmann at the time in a letter.

15. *Cuvieria* Peron in Cuvier, 1817. This is pre-occupied by *Cuvieria* Peron, 1807, Medusae.

16. *Cladodactyla* Brandt, 1835. Brandt included two sub-genera, *Polyclados* and *Holigoclados*. Panning (1949) lists *Holothuria crocea* Lesson, 1830, as type-species of *Cladodactyla*. Since *crocea* comes within *Polyclados* this is the nominate subgenus and becomes a synonym of *Cladodactyla*. As for *Holigoclados*, of the six species included by Brandt, only one was not prefixed by a question mark; this is *C. (Holigoclados) albida* Brandt, which is clearly the most eligible to be the type-species, as we now formally designate it. No type-material could be found for Ludwig (1881) evidently, though he referred the species to *Cucumaria*. H. L. Clark (1901) commented that *albida* 'is perhaps identical with *populifer* (Stimpson)'. In view of this doubtful situation, we request that the Commission suppress both *Holigoclados* and *C. (Holigoclados) albida* Brandt.

17 & 18. *Thyonidium* Düben and Koren, 1845(?) and *Duasmodactyla* Ayres, 1856. The earliest date of publication of *Thyonidium* is controversial; two papers of Düben and Koren appear in the *K. svenska Vetensk.-Akad. Handl.* for 1844 with the publication date, 1846, at the bottom of the title page, which is supported by M. Sars' reference in 1861 to Düben and Koren, 1846, as appearing 15 years earlier. Nevertheless, subsequent authors, including Semper (1868), Théel (1886), Fisher (1907), Mortensen (1927), Deichmann (1938) and Heding and Panning (1954), as well as Sherborn in his *Index Animalium*, give the date of *Thyonidium* as 1844. Synopses of Düben and Koren are given not only in the *Öfvers. K. Vetensk.-Akad. Förh.* for 1844 and 1845, dated respectively 1845 and 1846 on the title pages, but also in the *Arch. skand. Beitr. Naturgesch.*, pt. 1, dated 1845. It may be significant that in neither synopsis of the first paper (on holothurian skeletons) was the generic name *Thyonidium* used, instead the two species included were both referred to in their earlier combinations with *Cucumaria*, as if to avoid premature publication of the name without a diagnosis; the synopses of the second, systematic, paper inevitably included *Thyonidium* and may antedate the main paper. One of these papers almost certainly was published in 1845 (if not 1844) so that *Thyonidium* antedates *Orcula* Troschel, 1846. The two papers by Düben and Koren in the *K. svenska Vetensk.-Akad. Handl.* for 1844 are consecutive, 'Om Holothuriernas Hudskelet' is on pp. 221-228 and 'Öfversight af Skandinaviens Echinodermer' on pp. 229-328. *Thyonidium* is given as 'gen. nov.' and diagnosed on p. 303 in the second paper, with two species included, *Holothuria pellucida* Vahl, 1806, (with *Cucumaria hyalina* Forbes, 1841 in synonymy) and *Cucumaria communis* Forbes, 1841, in that order. However, both species are mentioned in the first paper in combination with the generic name *Thyonidium*, *commune* on p. 214 and *pellucidum* on p. 217. [As detailed below under B.33, *H. pellucida* Vahl is based on an apodan and not a dendrochirote, unlike *H. pellucida* Fleming, 1828, which is the species and authority given by subsequent authors in respect of *Thyonidium*, disregarding Forbes' replacement name *Cucumaria hyalina*.] The first designation of a type-species for *Thyonidium* is Fisher's (1907, p. 711), naming *T. commune* Forbes with reference to p. 214 of Düben and Koren, 1846, which does appear to have page priority. Until 1936 the two species were considered as

congeneric and were often both referred to *Phyllophorus* but Heding (1936) emphasized that the number of tentacles (15 or 20) is different and retained *commune* doubtfully in *Phyllophorus* while designating *pellucidum* as type-species of *Thyonidium*. In 1942 Heding revived the name *Duasmodactyla* Ayres, 1856, type-species, by monotypy, *D. productum* Ayres, which had been recognised by Deichmann (1930) as a synonym of (*Phyllophorus*) *commune*. Heding and Panning (1954) in their monographic work on the Phyllophoridae again name *pellucidum* as type-species of *Thyonidium* and *commune* as type-species of *Duasmodactyla*, disregarding Fisher's earlier type-designation for *Thyonidium* although they refer to his paper.

If Fisher's prior type-designation is followed, then *Duasmodactyla* would become a synonym of *Thyonidium*, type-species *T. commune*, and another generic name would need to be found for *Holothuria pellucida*. Such a name is available; this is *Orcula* Troschel, 1846, type-species by monotypy, *O. barthi* Troschel, which is considered to be congeneric with *pellucidum* by Heding and Panning.

This change around would be most confusing. In order to preserve the currently accepted terminology—that of the definitive work on the family Phyllophoridae by Heding and Panning—the Commission would need to exert its plenary powers to set aside Fisher's designation in 1907 of *Cucumaria communis* Forbes, 1841, as type-species of *Thyonidium* and designate *pellucidum* as type-species.

Both the specific names involved also have nomenclatorial complications; these are dealt with under section B, numbers 32 and 33.

19. *Dactylota* Brandt, 1835. Brandt included the following four species: *Holothuria laevis* and *minuta*, both of Fabricius, 1780, and *H. pellucida* and *inhaerens*, both of O. F. Müller, 1776. We now designate the first, *D. laevis*, as type-species. This is congeneric with *Chiridota discolor* Eschscholtz, the type-species of *Chiridota* Eschscholtz, 1829, to the synonymy of which H. L. Clark has already (1907) referred *Dactylota*.

20. *Aspidochir* Brandt, 1835. The type-species by monotypy is *A. Mertensii* Brandt. This was said to be probably referable to *Chiridota* by Ludwig (1881), for whom evidently no type-material could be found. In view of the uncertainty we request that the Commission suppress both *Aspidochir* and *A. Mertensii*.

21. *Liosoma* Brandt, 1835. The type-species by monotypy is *L. Sitchaense* Brandt. No type-material was forthcoming for Ludwig (1881) but he considered it identical with *Chiridota discolor* Eschscholtz, which synonymy was followed by H. L. Clark (1907). *Liosoma* is therefore a synonym of *Chiridota*.

22. *Oncinolabes* Brandt, 1835. This includes two species, *fuscescens* and *mollis*, both of Brandt. We now designate the first, *fuscescens*, as type-species of *Oncinolabes*. According to Ludwig (1881) after study of type-material, this is synonymous with *Synapta beselii* Jaeger, 1833, which is itself included in the synonymy of *S. maculata* (Chamisso and Eysenhardt), 1821 by H. L. Clark (1907) and subsequent authors. *Oncinolabes* is therefore reduced to the synonymy of *Synapta* and cannot threaten *Opheodesoma* Fisher, 1907, as it would if *mollis* were named as type-species. Ludwig (1881) considered that

mollis, of which no type-material was available, could be conspecific with *Synapta glabra* Semper, 1868, which is congeneric with *Opheodesoma spectabilis* Fisher, the type-species of *Opheodesoma*. Even so, it is desirable that *mollis* be suppressed in order not to invalidate the better-known name *Opheodesoma glabra* (Semper).

23. *Tiedemannia* Leuckardt, 1830. The type-species, by monotypy, is *Fistularia vittata* Forskål, 1775, from Suez. This has since been recorded a number of times, notably by Lampert (1885) and Ludwig (1886), the latter relating it to *Synapta indivisa* and *recta* Semper, since referred to *Synaptula*, but H. L. Clark (1907) in his discussion of *Synaptula* considers that none of these records is likely to be based on material conspecific with Forskål's and accordingly notes that both *Tiedemannia* and *Fistularia vittata* should be discarded.

B. SPECIES-GROUP NAMES FOR SUPPRESSION

1. *Holothuria* (*Microthele*) *Aethiops* Brandt, 1835. According to Ludwig (1881) the type-material is lost. Nevertheless he regards it as conspecific with *Holothuria pulla* Selenka, 1867, which is the name in current use though threatened if *aethiops* is not suppressed.

The following names were included by Théel (1886) under the heading of *Holothuria* (*sensu extenso*) as being 'mostly very incompletely known and in need of re-examination'. No such re-examination having occurred, we now propose all of them for suppression:

2. *Holothuria agglutinata* Lesueur, 1824 (referred to *Bohadschia* by Verrill, 1867-71).

3. *Bohadschia albiguttata* Jaeger, 1833.

4. *Holothuria brunnea* Chamisso and Eysenhardt, 1821. [It may be pointed out here that *Holothuria brunnea* Forbes in Thompson, 1840, p. 100, subsequently referred to *Ocnus* by Forbes (1841), is a primary homonym].

5. *Holothuria Cavolini* Delle Chiaje, 1823 (? a synonym of *Stichopus regalis* (Cuvier) according to Semper, 1868).

6. *Holothuria fasciata* Lesueur, 1824 (referred to *Bohadschia* by Verrill, 1867-71).

[It may be pointed out here that *Holothuria fasciata* Quoy and Gaimard, 1833, is a primary homonym; this too was given by Théel as incompletely known and Cherbonnier (1952) notes that the type is lost.]

7. *Sporadipus gigas* Oersted. We cannot trace a published mention of this name by Oersted, though it is listed by Verrill (1867) and Théel (1886) quoting Verrill's date. Possibly it is an invalid manuscript name.

8. *Holothuria heros* L. Agassiz, 1852.

9. *Bohadschia lineolata* Jaeger, 1833.

10. *Fistularia maxima* Forskål, 1775.

11. *Holothuria monosticha* Haacke, 1880.

12. *Holothuria obscura* Lesueur, 1824.

13. *Holothuria* (*Microthele*) *sordida* Brandt, 1835 (Type not found for Ludwig, 1881).

Théel also included the following six names of Risso, 1826, with the comment that 'some of them are probably not *Holothurids* but belong to other groups of animals':

14. *Holothuria glaberrima*.
15. *Holothuria littoralis*.
16. *Holothuria mammillata*.
17. *Holothuria ovata*.
18. *Holothuria punctata*.
19. *Holothuria stellata*.

The first of these, *H. glaberrima* Risso, also needs to be suppressed under the Law of Homonymy since it invalidates *Holothuria glaberrima* Selenka, which has been widely used for a circum-tropical species.

Théel further listed a number of nominal species originally referred to *Holothuria* but clearly not members of the Aspidochirota under headings of species incompletely or unsatisfactorily known and needing re-examination:

20. *Holothuria dissimilis* Fleming, 1828. A *Cucumaria* according to Théel (1886); an unidentifiable *Cucumariid* according to Mortensen (1927).

21. *Holothuria lapidifera* Lesueur, 1824. An *Orcula* or possibly another genus according to Théel (1886); ? *Phyllaphorus* according to Verrill (1867).

22. *Holothuria minuta* Fabricius, 1780. A *Pentacta* according to Jaeger (1833), *Dactylota* according to Brandt (1835), *Ocnus* according to Semper (1868) and *Cucumaria* according to Théel (1886), who placed it among the unsatisfactorily known species. It has not been contemporaneously considered congeneric with *Colochirus minutus* Ludwig, 1875, which was referred to *Pentacta* by H. L. Clark in 1932. Nevertheless, it could threaten the latter as a senior secondary homonym and its suppression is desirable.

23. *Holothuria Neillii* Fleming, 1828. A *Cucumaria* according to Théel (1886); unidentifiable according to Mortensen (1927).

24. *Holothuria pusilla* M. Sars, 1828. A *Cucumaria* according to Théel (1886).

25. *Holothuria tetraquetra* Delle Chiaje, 1828. A *Cucumaria* according to Théel (1886).

26. *Holothuria tentaculata* Forster in Blainville, 1821. A *Synapta* close to *S. beselii* [maculata] according to Théel (1886); possibly referable to *S. maculata* but 'impossible to say positively', according to H. L. Clark (1907).

There are also a few other, possibly controversial, cases, including the following:

27. *Cladodactyla nigricans* Brandt, 1835. According to Ludwig (1881) this is probably conspecific with *Cucumaria piperata* Stimpson, 1864, which name has been used in preference by other authors, notably H. L. Clark (1901). Although a type-specimen was available for Ludwig to study, he left the status of Brandt's species still uncertain and it would be better suppressed.

28—30. *Colochirus viridis* Semper, 1868, *C. collaradiatus* and *C. propinquus* Haacke, 1880. These were listed as insufficiently known by Théel (1886) and have not since been recorded. Haacke's type material of the two last could not be traced in the Kiel Museum for Ludwig (1883).

31. *Cuvieria Stichaensis* Brandt, 1835. No type-material could be found for Ludwig (1881), nevertheless he reckoned that it is conspecific with *Psolus fabricii*. Since the latter was a replacement name for *Holothuria squamata* Fabricius, 1780 *non* O. F. Müller, 1776, and dates only from Düben and Koren, 1846 (not Lütken as given by Ludwig), we request that *C. stichaensis* be suppressed in order that the well-known and widely-used name *P. fabricii* Düben and Koren should not be invalidated.

32. *Holothuria Drummondii* Thompson, 1840. Düben and Koren (1846) referred *drummondii*: Forbes, 1841 to *Thyonidium* and included *Cucumaria communis* Forbes, 1841, in the synonymy; they made no mention of *H. Drummondii* Thompson but Selenka (1867) followed by Semper (1868) and Théel (1886) give Thompson as the author of *T. drummondii*. However, Mortensen (1927) commented that 'the name *drummondii* ought not to be used, as it is quite impossible to say to which species the original description really refers. The form described by Forbes under that name is certainly not a *Thyonidium*'. A similar comment was made by Deichmann (1930). Heding (1942) and Heding and Panning (1954) refer *commune* to *Duasmiodactyla* and in the second paper list *drummondii* Thompson in the synonymy. It therefore seems advisable to request the suppression of *Holothuria Drummondii* Thompson, 1840 in order not to invalidate *Cucumaria communis* Forbes, 1841.

33. *Holothuria pellucida* Vahl in O. F. Müller, 1806. This was regarded by Selenka and subsequent authors as an apodan conspecific with *Holothuria laevis* Fabricius, 1780. However, Heding, in 1935, revived it as a valid species of *Chiridota*, distinct from *C. laevis*. In 1828 Fleming referred some specimens from the Shetland Islands to *Holothuria pellucida* O. F. Müller (i.e. Vahl), giving a very brief diagnosis not differing significantly from Vahl's. Forbes (1841) pointed out that Fleming's material was probably not conspecific with Müller's and proposed the replacement name *Cucumaria hyalina*. In 1846 (? '45, see A.17 & 18) Düben and Koren described the new dendrochirote genus *Thyonidium* and referred to it two species, *Cucumaria communis* Forbes and *Holothuria pellucida* Vahl with *C. hyalina* Forbes in the synonymy; clearly their knowledge of the species derived more from Forbes than from Vahl. Semper (1868), followed by Théel (1886) and others, names Fleming as author of *Thyonidium pellucidum*, which completely disregards the rules, and *hyalina* Forbes has since remained unused. Although Heding avoided pointing out Düben and Koren's misidentification of *H. pellucida* Vahl, his action in first reviving it for an apodan (1935) and then (1936) in designating '*Thyonidium pellucidum* Düben and Koren' as type-species of *Thyonidium*, shows clearly that he was employing deliberate use of mis-identification. Unfortunately *pellucidum* Düben and Koren is still antedated by *Cucumaria hyalina* Forbes, 1841. There is much justification for adopting Forbes' name but it would cause considerable confusion. Accordingly we request the Commission to exert its plenary powers to suppress *hyalina* and to validate *Thyonidium pellucidum* from Düben and Koren, 1845.

34 & 35. *Fistularia punctulata* and *tenuis* Quoy and Gaimard, 1833. These are mentioned under the generic headings of respectively *Synapta* and *Chiridota* by Cherbonnier (1952) in his revision of the type-material of Quoy

and Gaimard. However, he was doubtful about the true identity of both of them since all the relevant type-material was lost.

36 & 37. *Chiridota verrucosa* and *lumbricoides* Eschscholtz, 1829. H. L. Clark (1907) considers that there is insufficient evidence to determine the identity of either of these nominal species, which would therefore be better suppressed.

The following specific names have already been proposed for suppression under section A of this paper:

38. *Holothuria Brandtii* Selenka, see A. 1.
39. *Ananus holothuroides* Sluiter, see A. 12.
40. *Diploperideris Sitchaensis* Brandt, see A. 13.
41. *Cladodactyla (Holigoclados) albida* Brandt, see A. 16.
42. *Aspidochir Mertensii* Brandt, see A. 20.
43. *Oncinolabes mollis* Brandt, see A. 22.
44. *Fistularia vittata* Forskål, see A. 23.

The problem of *Holothuria umbrina* Rüppel & Leuckart, and *H. monacaria* and *hilla* Lesson and *H. gyriifer* Selenka will be dealt with in a future submission.

SUMMARY OF THE NOMINAL TAXA INCLUDED BY BRANDT

Brandt's Name	Present disposition
Genus <i>Cladodactyla</i> Br.	valid
Subgenus <i>Polyclados</i> Br.	syn. of <i>Cladodactyla</i>
<i>crocea</i> (Lesson)	valid; Type-species of <i>Cladodactyla</i>
<i>miniata</i> Br.	valid
<i>nigricans</i> Br.	proposed for suppression
Subgenus <i>Holigoclados</i> Br.	proposed for suppression
<i>albida</i> Br.	proposed for suppression
Genus <i>Dactylota</i> Br.	syn. of <i>Chiridota</i> , H. L. Clark, 1907.
<i>laevis</i> (Fab.)	des. T-sp. of <i>Dactylota</i> ; to <i>Chiridota</i>
<i>minuta</i> (Fab.)	proposed for suppression
<i>pellucida</i> (O.F.M.)	proposed for suppression
<i>inhaerens</i> (O.F.M.)	valid; to <i>Leptosynapta</i>
Genus <i>Aspidochir</i> Br.	proposed for suppression
<i>Mertensii</i> Br.	proposed for suppression
Genus <i>Sporadipus</i> Br.	syn. of <i>Bohadschia</i>
Subgenus <i>Colpochirota</i> Br.	syn. of <i>Bohadschia</i>
<i>ualanensis</i> Br.	syn. of <i>B. marmorata</i> , Ludwig, 1881
Subgenus <i>Acolpos</i> Br.	proposed for suppression
<i>maculatus</i> Br.	homonym; des. T-sp.; = <i>H. arenicola</i>
Genus <i>Psolus</i> Oken	valid
<i>pantapus</i> (O.F.M.)	valid; <i>phantapus</i> Strussenfeldt
<i>appendiculatus</i> (Blainville)	valid
Genus <i>Cuvieria</i> Peron	homonym of <i>Cuvieria</i> Peron, 1807
<i>Sitchaensis</i>	= <i>Psolus</i> Oken
	proposed for suppression

Brandt's name	Present disposition
Genus <i>Oncinolabes</i> Br.	syn. of <i>Synapta</i>
<i>fuscescens</i> Br.	des. T-sp.; syn. of <i>S. maculata</i> , H.L.C. 1907
<i>mollis</i> Br.	proposed for suppression
Genus <i>Stichopus</i> Br.	valid
Subgenus <i>Perideris</i> Br.	syn. of <i>Stichopus</i>
<i>chloronotos</i> Br.	valid; des. T-sp., H.L.C., 1922
Subgenus <i>Gymnochirotia</i> Br.	proposed for suppression
<i>cinerascens</i> Br.	valid; to <i>Holothuria</i> (<i>Semperothuria</i>)
<i>leucospilota</i> Br.	valid; to <i>Holothuria</i> (<i>Mertensiothuria</i>)
Genus <i>Diploperideris</i> Br.	proposed for suppression
<i>Sitchaensis</i> Br.	proposed for suppression
Genus <i>Holothuria</i> Linn.	validated, 1927
Subgenus <i>Thelenota</i> Br.	syn. of <i>Holothuria</i>
(<i>Thelenota</i> H.L.C., 1921)	proposed for validation
section <i>Camarosoma</i> Br.	unavailable
<i>tubulosa</i> Tied.	valid, <i>tubulosa</i> Gmelin; T-sp.
<i>elegans</i> O.F.M.	syn. of <i>Stichopus tremulus</i> , Dübén & Koren, 1846 (?1844)
<i>impatiens</i> Forsk.	valid
<i>umbrina</i> Rüppel & Leuckart	doubtful; subject of future submission
<i>quadrangularis</i> Lesson	valid; to <i>Pentacta</i>
<i>ananas</i> (Jaeger)	valid; T-sp. of <i>Thelenota</i> , H.L.C., 1922
section <i>Platysoma</i> Br.	unavailable
<i>grandis</i> Br.	syn. of <i>T. ananas</i> , Ludwig, 1881
? <i>Holothuria monacaria</i> Lesson	subject of future submission
Subgenus <i>Microthele</i> Br.	proposed for validation
<i>maculata</i> Br.	homonym; des. T-sp.; = <i>nobilis</i>
<i>dubia</i> Br.	syn. of <i>Actinopyga lecanora</i> , Ludwig, 1881
<i>tigris</i> Br.	proposed for suppression
<i>sordida</i> Br.	proposed for suppression
<i>Aethiops</i> Br.	proposed for suppression
<i>affinis</i> Br.	syn. of <i>H. atra</i> , Ludwig, 1881
<i>fuscocinerea</i> Jaeger	valid; to <i>Holothuria</i> (<i>Mertensiothuria</i>)
<i>atra</i> Jaeger	valid; to <i>Halodeima</i>
<i>fuscopunctata</i> Jaeger	valid; to <i>Holothuria</i> (<i>Jaegeriothuria</i>)
<i>scabra</i> Jaeger	valid; to <i>Holothuria</i> (<i>Theelothuria</i>)
Genus <i>Bohadschia</i> Jaeger	valid
<i>marmorata</i> Jaeger	valid; des. T-sp., Pearson, 1914
<i>ocellata</i> Jaeger	valid; to <i>Holothuria</i>
<i>argus</i> Jaeger	valid
<i>lineolata</i> Jaeger	proposed for suppression
<i>albiguttata</i> Jaeger	proposed for suppression

<i>Brandt's name</i>	<i>Present disposition</i>
Genus <i>Mülleria</i> Jaeger	homonym; = <i>Actinopyga</i> Bronn, 1860
<i>echinites</i> Jaeger	valid; to <i>Actinopyga</i> ; des. T-sp.
<i>lecanora</i> Jaeger	valid; to <i>Actinopyga</i>
Genus <i>Trepang</i> Jaeger	proposed for suppression
<i>edulis</i> Jaeger	valid; T-sp.; to <i>Halodeima</i>
Genus <i>Cladolabes</i> Br.	valid
<i>limaconotos</i> Br.	valid; des. T-sp., Heding & Panning, 1954
Genus <i>Liosoma</i> Br.	syn. of <i>Chiridota</i> , H. L. Clark, 1907
<i>Sitchaense</i> Br.	syn. of <i>Chiridota discolor</i> , Ludwig, 1881
Genus <i>Chiridota</i> Eschscholtz	valid
<i>rufescens</i> Br.	valid; to <i>Polycheira</i>
<i>discolor</i> Esch.	valid; des. T-sp., H. L. Clark, 1907
<i>verrucosa</i> Esch.	proposed for suppression
<i>lumbricoides</i> Esch.	proposed for suppression
<i>purpurea</i> Lesson	valid; to <i>Trochodota</i>
Genus <i>Synapta</i> Eschscholtz	valid
<i>mamillosa</i> Esch.	syn. of <i>S. maculata</i> , H. L. Clark, 1907
<i>oceanica</i> Lesson	valid

As a consequence of all this, the International Commission is requested:

- (1) to use its plenary powers to suppress for the purposes of the Law of Priority but not for those of the Law of Homonymy the following genus-group names:
 - (a) *Acolpos* Brandt, 1835;
 - (b) *Trepang* Jaeger, 1833;
 - (c) *Gymnochirota* Brandt, 1835 (subgenus of *Stichopus*);
 - (d) *Ananus* Sluiter, 1881;
 - (e) *Diploperideris* Brandt, 1835;
 - (f) *Holigoclados* Brandt, 1835 (subgenus of *Cladodactyla*);
 - (g) *Aspidochir* Brandt, 1835;
 - (h) *Tiedemannia* Leuckardt, 1830.
- (2) to use its plenary powers to suppress for the purposes of the Law of Priority but not for those of the Law of Homonymy the following specific names:
 - (a) *brandtii* Selenka, 1867, as published in the binomen *Holothuria Brandtii*;
 - (b) *holothuroides* Sluiter, 1881, as published in the binomen *Ananus holothuroides*;
 - (c) *sitchaensis* Brandt, 1835, as published in the binomen *Diploperideris Sitchaensis*;
 - (d) *albida* Brandt, 1835, as published in the binomen *Cladodactyla albida*;
 - (e) *mertensii* Brandt, 1835, as published in the binomen *Aspidochir Mertensii*;

- (f) *mollis* Brandt, 1835, as published in the binomen *Oncinolabes mollis*;
- (g) *vittata* Forskål, 1775, as published in the binomen *Fistularia vittata*;
- (h) *aethiops* Brandt, 1835, as published in the binomen *Holothuria Aethiops*;
- (i) *agglutinata* Lesueur, 1824, as published in the binomen *Holothuria agglutinata*;
- (j) *albiguttata* Jaeger, 1833, as published in the binomen *Bohadschia albiguttata*;
- (k) *brunnea* Chamisso and Eysenhardt, 1821, as published in the binomen *Holothuria brunnea*;
- (l) *cavolini* Delle Chiaje, 1823, as published in the binomen *Holothuria Cavolini*;
- (m) *fasciata* Lesueur, 1824, as published in the binomen *Holothuria fasciata*;
- (n) *gigas* Oersted, 1867, as published in the binomen *Sporadipus gigas*;
- (o) *heros* L. Agassiz, 1852, as published in the binomen *Holothuria heros*;
- (p) *lineolata* Jaeger, 1833, as published in the binomen *Bohadschia lineolata*;
- (q) *maxima* Forskål, 1775, as published in the binomen *Fistularia maxima*;
- (r) *monosticha* Haacke, 1880, as published in the binomen *Holothuria monosticha*;
- (s) *obscura* Lesueur, 1824, as published in the binomen *Holothuria obscura*;
- (t) *sordida* Brandt, 1835, as published in the binomen *Holothuria sordida*;
- (u) *glaberrima* Risso, 1826, as published in the binomen *Holothuria glaberrima*;
- (v) *littoralis* Risso, 1826, as published in the binomen *Holothuria littoralis*;
- (w) *mammillata* Risso, 1826, as published in the binomen *Holothuria mammillata*;
- (x) *ovata* Risso, 1826, as published in the binomen *Holothuria ovata*;
- (y) *punctata* Risso, 1826, as published in the binomen *Holothuria punctata*;
- (z) *stellata* Risso, 1826, as published in the binomen *Holothuria stellata*;
- (a') *dissimilis* Fleming, 1828, as published in the binomen *Holothuria dissimilis*;
- (b') *lapidifera* Lesueur, 1824, as published in the binomen *Holothuria lapidifera*;
- (c') *minuta* Fabricius, 1780, as published in the binomen *Holothuria minuta*;
- (d') *neillii* Fleming, 1828, as published in the binomen *Holothuria Neillii*;

- (e') *pusilla* M. Sars, 1828, as published in the binomen *Holothuria pusilla*;
 - (f') *tetraquetra* Delle Chiaje, 1828, as published in the binomen *Holothuria tetraquetra*;
 - (g') *tentaculata* Forster, 1821, as published in the binomen *Holothuria tentaculata*;
 - (h') *nigricans* Brandt, 1835, as published in the binomen *Cladodactyla nigricans*;
 - (i') *viridis* Semper, 1868, as published in the binomen *Colochirus viridis*;
 - (j') *colloradiatus* Haacke, 1880, as published in the binomen *Colochirus colloradiatus*;
 - (k') *propinquus* Haacke, 1880, as published in the binomen *Colochirus propinquus*;
 - (l') *sitchaensis* Brandt, 1835, as published in the binomen *Cuvieria Sitchaensis*;
 - (m') *drummondii* Thompson, 1840, as published in the binomen *Holothuria Drummondii*;
 - (n') *hyalina* Forbes, 1841, as published in the binomen *Cucumaria hyalina*;
 - (o') *punctulata* Quoy and Gaimard, 1833, as published in the binomen *Fistularia punctulata*;
 - (p') *tenuis* Quoy and Gaimard, 1833, as published in the binomen *Fistularia tenuis*;
 - (q') *verrucosa* Eschscholtz, 1829, as published in the binomen *Chiridota verrucosa*;
 - (r') *lumbricoides* Eschscholtz, 1829, as published in the binomen *Chiridota lumbricoides*.
- (3) to use its plenary powers to suppress for the purposes of the Law of Homonymy:
 - (a) the generic name *Thelenota* Brandt, 1835 (a junior synonym of *Holothuria*);
 - (b) the specific name *glaberrima* Risso, 1826, as published in the binomen *Holothuria glaberrima* (suppressed for the purposes of the Law of Priority under (2) (u) above).
 - (4) to use its plenary powers to validate the specific name *pellucidum* Düben and Koren, 1845, as published in the binomen *Thyonidium pellucidum*, as a name distinct from *Holothuria pellucida* Vahl, 1806, even though Düben and Koren had no intention of publishing a new name.
 - (5) to use its plenary powers to set aside all designations of type-species, made prior to the Ruling now requested, for the nominal genus *Thyonidium* Düben and Koren, 1845, and having done so to designate *Thyonidium pellucidum* Düben and Koren, 1845, to be the type-species of that genus.
 - (6) to place the names suppressed under the plenary powers in (1) (2) and (3) above on the appropriate Official Lists of Rejected and Invalid Names in Zoology.

- (7) to place the following generic names on the Official List of Generic Names in Zoology:
- (a) *Thelenota* H. L. Clark, 1922 (p. 48) (gender : neuter), type-species, by original designation, *Trepang ananas* Jaeger, 1833;
 - (b) *Synapta* Eschscholtz, 1829 (p. 12) (gender : feminine), type-species, by designation by H. L. Clark (1907, p. 22), *Holothuria maculata* Chamisso and Eysenhardt, 1821;
 - (c) *Microthele* Brandt, 1835 (p. 54) (gender : masculine), type-species, by present designation, *Holothuria (Microthele) maculata* Brandt, 1835, invalid, replaced by *H. nobilis* Selenka, 1867 (already placed on the Official List—No. 2112);
 - (d) *Stichopus* Brandt, 1835 (p. 50) (gender : masculine), type-species, by designation by H. L. Clark (1922), *Stichopus chloronotos* Brandt, 1835;
 - (e) *Halodeima* Pearson, 1914 (p. 164) (gender : feminine), type-species, by original designation, *Holothuria atra* Jaeger, 1833;
 - (f) *Bohadschia* Jaeger, 1833 (p. 18) (gender : feminine), type-species, by designation by Pearson (1914), *B. marmorata* Jaeger, 1833;
 - (g) *Actinopyga* Bronn, 1860 (p. 403) (gender : feminine), type-species, by present designation, *Muelleria echinites* Jaeger, 1833;
 - (h) *Thyonidium* Düben and Koren, 1845 (p. 214) (gender : neuter), type-species, by designation under the plenary powers in (5) above, *Thyonidium pellucidum* Düben and Koren, 1845;
 - (i) *Duasmodyctyla* Ayres, 1856 (p. 244) (gender : neuter), type-species, by monotypy, *Duasmodyctyla productum* Ayres, 1856;
 - (j) *Chiridota* Eschscholtz, 1829 (p. 12) (gender : feminine), type-species, by designation by Fisher (1907), *Chiridota discolor* Eschscholtz, 1829;
 - (k) *Labidodemas* Selenka, 1867 (p. 309) (gender : neuter), type-species, by monotypy, *Labidodemas semperianum* Selenka, 1867.
- (8) to place the following specific names on the Official List of Specific Names in Zoology:
- (a) *arenicola* Semper, 1868, as published in the binomen *Holothuria arenicola*;
 - (b) *ananas* Jaeger, 1833, as published in the binomen *Trepang ananas* (type-species of *Thelenota* Clark, 1922);
 - (c) *maculata* Chamisso and Eysenhardt, 1821, as published in the binomen *Holothuria maculata* (type-species of *Synapta* Eschscholtz, 1829);
 - (d) *chloronotos* Brandt, 1835, as published in the binomen *Stichopus chloronotos* (type-species of *Stichopus* Brandt, 1835);
 - (e) *atra* Jaeger, 1833, as published in the binomen *Holothuria atra* (type-species of *Halodeima* Pearson, 1914);
 - (f) *marmorata* Jaeger, 1833, as published in the binomen *Bohadschia marmorata* (type-species of *Bohadschia* Jaeger, 1833);
 - (g) *miliaris* Quoy and Gaimard, 1833, as published in the binomen *Holothuria miliaris*;

- (h) *echinites* Jaeger, 1833, as published in the binomen *Muelleria echinites* (type-species of *Actinopyga* Bronn, 1860);
- (i) *pellucidum* Düben and Koren, 1845, as published in the binomen *Thyonidium pellucidum* (type-species of *Thyonidium* Düben and Koren, 1845);
- (j) *communis* Forbes, 1841, as published in the binomen *Cucumaria communis*;
- (k) *discolor* Eschscholtz, 1829, as published in the binomen *Chiridota discolor* (type-species of *Chiridota* Eschscholtz, 1829);
- (l) *pulla* Selenka, 1867, as published in the binomen *Holothuria pulla*;
- (m) *glaberrima* Selenka, 1867, as published in the binomen *Holothuria glaberrima*;
- (n) *minutus* Ludwig, 1875, as published in the binomen *Colochirus minutus*;
- (o) *piperata* Stimpson, 1864, as published in the binomen *Cucumaria piperata*;
- (p) *semperianum* Selenka, 1867, as published in the binomen *Labidodemus Semperianum* (type-species of *Labidodemus* Selenka, 1867).

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